

LL

Series Low Leakage Current 105°C
低漏电流105°C

适用于HI-Fi之前放大器，TV之振荡回路等。

★ Suitable for Hi-Fi Pre-amplifiers TV oscillation loop circuits etc.

★ Load Life 2000Hrs at 105°C

主要技术性能 Specifications

项目 Item	特性 Performance Characteristics																
使用温度范围 Operating temperature rang	-40 ~ 105°C																
额定电压范围 Rated voltage range	6.3 ~ 60V _{DC}																
标准电容量范围 Nominal capacitance range	0.1 ~ 2200 μF																
标准电容量允许偏差 Capacitance tolerance	±20% (120Hz, +20°C)																
漏电流 Leakage current	$I \leq 0.002CV$ (A) or 0.4uA 2 分钟后测试取较大者 After 2 minutes applying the DC working voltage V : Working Voltage (V) C : Rated Capacitance (μF) L : Leakage Current (A)																
损耗角正切值 (tan. δ) Dissipation factor max. (D.F.) at 20°C, 120Hz	<table border="1"> <tr> <td>Working Voltage V_{DC}</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> </tr> <tr> <td>DF (%) Max.</td> <td>24</td> <td>20</td> <td>16</td> <td>14</td> <td>12</td> <td>10</td> <td>9</td> </tr> </table> <p>当容量大于1000 μF 时，每增加1000 μF 的容量，DF 增加2%。 For Capacitance > 1000 μF, add 2% per another 1000 μF.</p>	Working Voltage V _{DC}	6.3	10	16	25	35	50	63	DF (%) Max.	24	20	16	14	12	10	9
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低温特性 Low Temperature Characteristics (Impedance ratio at 120Hz)	<table border="1"> <tr> <td>Working Voltage (V_{DC})</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>50</td> <td>63</td> </tr> <tr> <td>Z-40°C/+20°C</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>2</td> <td>2</td> </tr> </table> <p>For Capacitance > 1000 μF, add 1 per another 1000 μF for -40°C/+20°C</p>	Working Voltage (V _{DC})						50	63	Z-40°C/+20°C						2	2
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负荷寿命 Load life	+105°C下施加额定工作电压2000Hrs 后，特性变化率如下： After applying rated voltage for 2000Hrs at 105°C， <table border="1"> <tr> <td>Capacitance Change</td> <td>≤ ±20% 初始测量值以内 The initial value</td> </tr> <tr> <td>D.F. (%) Change</td> <td>≤ 200% 初始规定值 The initial specified value</td> </tr> <tr> <td>Leakage Current Change</td> <td>≤ 初始规定值 The initial specified value</td> </tr> </table>	Capacitance Change	≤ ±20% 初始测量值以内 The initial value	D.F. (%) Change	≤ 200% 初始规定值 The initial specified value	Leakage Current Change	≤ 初始规定值 The initial specified value										
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放置寿命 Shelf life	+105°C下放置1000Hrs 后，特性变化率如下： After 1000Hrs at 105°C， <table border="1"> <tr> <td>Capacitance Change</td> <td>≤ ±20% 初始测量值以内 The initial value</td> </tr> <tr> <td>D.F. (%) Change</td> <td>≤ 200% 初始规定值 The initial specified value</td> </tr> <tr> <td>Leakage Current Change</td> <td>≤ 初始规定值 The initial specified value</td> </tr> </table>	Capacitance Change	≤ ±20% 初始测量值以内 The initial value	D.F. (%) Change	≤ 200% 初始规定值 The initial specified value	Leakage Current Change	≤ 初始规定值 The initial specified value										
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纹波与频率系数对照表

Multiplier of ripple current vs frequency

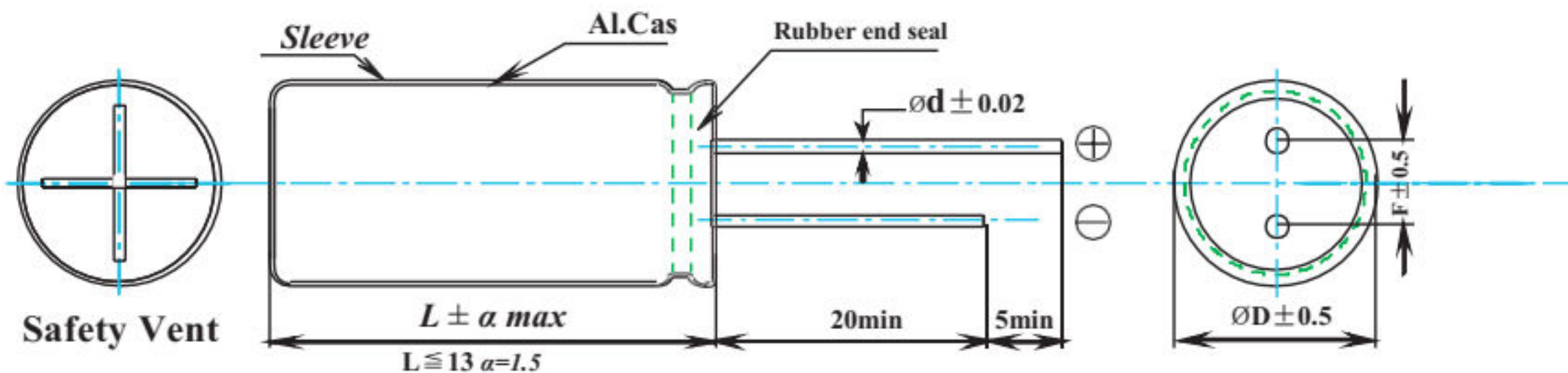
CAP (μF) \ Hz		50	60	120	400	1K	10K	50K-100K
Coefficient	CAP ≤ 10	0.8	1	1.30	1.45	1.65	1.70	
	10 < CAP ≤ 100	0.8	1	1.23	1.36	1.48	1.53	
	100 < CAP ≤ 1000	0.8	1	1.16	1.25	1.35	1.38	

纹波与温度系数对照表

Multiplier of ripple current vs temperature

Temperature (°C)	55	60	70	85	105
系数 Factor	2.23	2.17	2.00	1.75	1.00

规格尺寸图 Dimensions: mm



$\phi D \pm 0.5$	5	6.3	8	10	13
$F \pm 0.5$	2.0	2.5	3.5	5.0	5.0
$\phi d \pm 0.02$	0.5	0.5	0.5	0.6	0.6

尺寸与纹波对照表 Ripple Current vs Capacitance

WV (V) Cap (F)		øD x L(mm)													
		6.3 (8)		10 (3)		16 (20)		25 (32)		35 (44)		50 (63)		63 (79)	
		Size	R.C.	Size	R.C.	Size	R.C.	Size	R.C.	Size	R.C.	Size	R.C.	Size	R.C.
0.1												5x11	8.8	5x11	8.8
0.22												5x11	8.8	5x11	8.8
0.33												5x11	8.8	5x11	8.8
0.47												5x11	12	5x11	12
1												5x11	17	5x11	17
2.2												5x11	25	5x11	24
3.3												5x11	30	5x11	30
4.7								5x11	30	5x11	33	5x11	36	5x11	40
10						5x11	40	5x11	40	5x11	48	5x11	50	6.3x12	58
22		5x11	36	5x11	50	5x11	60	5x11	65	6.3x12	70	6.3x12	77	6.3x12	90
33		5x11	44	5x11	66	5x11	68	5x11	76	6.3x12	80	6.3x12	100	8x12	110
47		5x11	50	5x11	75	5x11	100	6.3x12	120	6.3x12	120	8x12	140	8x12	150
100		5x11	74	5x11	100	6.3x12	140	8x12	150	8x12	180	10x13	210	10x17	260
220		6.3x12	130	8x12	190	8x12	220	10x13	250	10x13	330	10x20	380	13x21	440
330		6.3x12	160	8x12	250	8x12	270	10x13	350	10x17	440	13x21	500	13x25	590
470		8x12	240	8x12	320	10x13	410	10x17	480	13x21	590	13x25	700		
1000		10x13	390	10x17	600	10x20	700	13x21	850	13x25	1010				
2200		13x21	660	13x21	860	13x25	890								

Ripple Current (mA rms) at 105°C 120Hz